Spectrum® 1251

Issued March 2007 • Index No. PC/11.0

Air Plasma Cutting and Gouging

Quick Specs

Industrial Applications
Heavy Fabrication
Manufacturing

Processes
Air Plasma Cutting and Gouging

Rated Output
(Three-phase input only)
100 A at 160 VDC,
80% Duty Cycle (380–575 V)
50% Duty Cycle (230 V),
40% Duty Cycle (208 V)

Cutting Capability
Rated: 1-1/4 in (32 mm)
Quality: 1-1/2 in (38 mm)
Sever: 1-3/4 in (44 mm)

Weight
With torch: 97 lb (44 kg)

Required Input Pressure/Flow
9.2 SCFM (260 L/min) at
90 PSI MIN (621 kPa)
120 PSI MAX (828 kPa)

The Power of Blue®

Auto-Line™ automatically connects unit to any primary input voltage from 208 to 575 volts three-phase, 50 or 60 Hz.

LVC™ **line voltage compensation** provides peak performance power under variable input voltage conditions (176–630 V) for steady cuts and cleaner ending cuts.

Auto-Refire™ **technology** provides ultimate convenience by automatically controlling the pilot arc when cutting expanded metal or multiple pieces of metal. The pilot arc will switch in and out as fast as needed when cutting expanded metal and provides maximum power for cutting thicker metal — all automatically! No need for manual re-triggering, reducing user hand fatigue.

Consumables storage compartment provides convenient access to consumables and parts.

Wind Tunnel Technology™ prevents dust and particles from damaging internal components. Also, the **Fan-On-Demand**™ cooling system only operates when needed, reducing the amount of airborne dust/dirt pulled through the unit.

Superior gouging capability provides an extremely long gouging arc for those hard-to-reach, heavy applications. Plasma arc gouging produces less dust, smoke and other harmful environmental hazards compared to carbon arc gouging.

CNC/robotic machine interface is standard on all units, allowing automated control and rapid changeover to mechanized operation.

Comes Complete With:
- ICE-100T hand-held torch with 25 ft (7.6 m) or 50 ft (15.2 m) cable, or ICE-100TM machine-held torch with 25 ft (7.6 m) or 50 ft (15.2 m) cable. Extra consumables supplied
- Heavy-duty work clamp with 25 ft (7.6 m) or 50 ft (15.2 m) cable
- 10 ft (3 m) power cord
- CNC/robotic remote cable kit (included w/machine-held torch pkg)

Portable and powerful — cuts up to 1-3/4 in (44 mm) yet weighs only 97 lb (44 kg).

Starts without high-frequency so it will not interfere with or damage controls or computers.

Postflow cooling circuit cools the torch and consumables with postflow air after you release the trigger, extending the life of torch and consumables.

Patented Ultra-Quick Connect™ **torch** offers the fastest plasma torch connection and removal in the industry.

Miller's rugged **ICE-100T torch** provides a rated cut of 1-1/4 in (32 mm), longer consumable life, and a torch cable that is more resistant to burns and cuts.

ICE-100T torch **includes a drag shield** that attaches to the cup and holds the tip off the workpiece. This permits the operator to drag the torch on the workpiece while cutting, which increases operator comfort and makes template cutting easier.

TRUE BLUE® 3YR. WARRANTY

Power source is warranted for 3 years, parts and labor.
ICE torch is warranted for 1 year, parts and labor.

MADE IN APPLETON, WI USA

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Web Site
www.MillerWelds.com

ISO 9001:2000 REGISTERED QUALITY SYSTEM

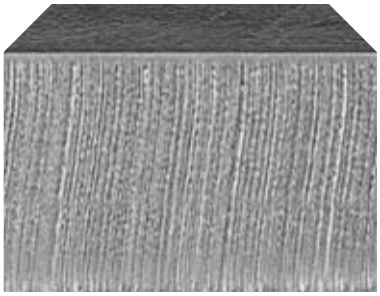
Specifications (Subject to change without notice.)

DC 3 Phase

Input Power	Rated Output	Duty Cycle	Amps Input at Rated Output, 50/60 Hz 208 V	230 V	400 V	460 V	575 V	KVA	KW	Plasma Gas	Dimensions	Net Weight with Torch
3-phase	100 A at 160 VDC	80% at 380–575 V 50% at 230 V 40% at 208 V	55	49	28	24	19	19.1	18.1	Air or Nitrogen only	H: 17 in (432 mm) W: 12-1/2 in (318 mm) D: 20-1/2 in (521 mm)	Net: 97 lb (44 kg)

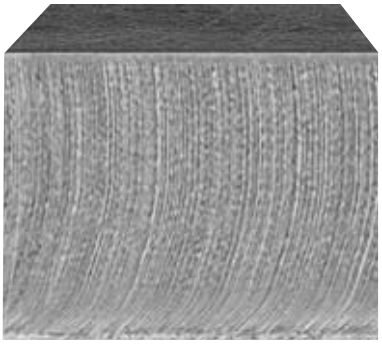
Mild Steel Cutting Capability (Thickness to scale.)

Rated



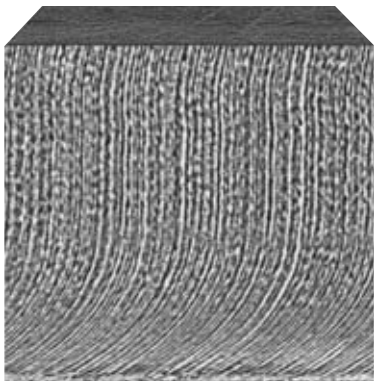
1-1/4 in (32 mm)

Quality



1-1/2 in (38 mm)

Sever



1-3/4 in (44 mm)

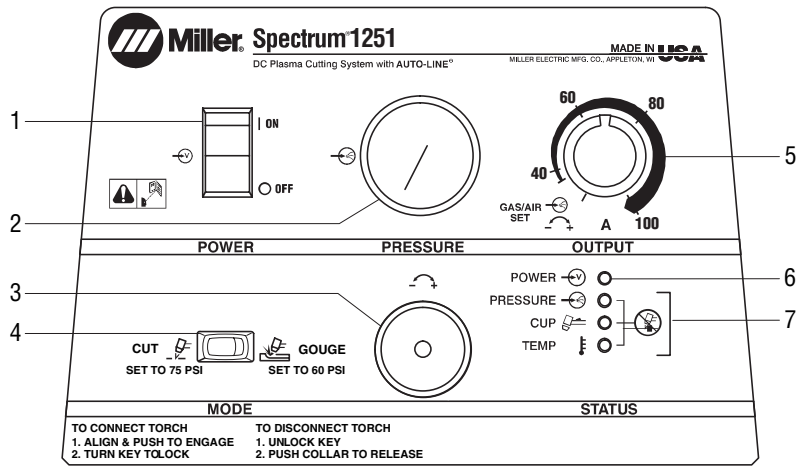
Rated Cutting Capacity
10 inches per minute (minimum speed at which an operator achieves a smooth, steady cut using a hand-held torch).

Maximum Quality Cutting Capacity
Good-quality cut achieved at lower speeds.

Sever Cut Capacity
Maximum cut achieved in ideal conditions.

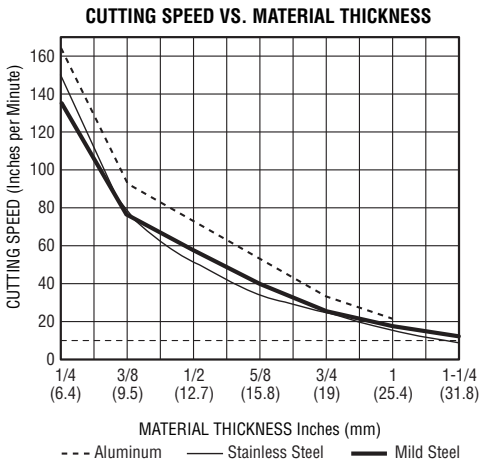
Note: Recommended maximum piercing capacity for hand-held applications is 5/8 in (16 mm).
For aluminum and other metals with high thermal conductivity, cutting capabilities will be derated as much as 30%.

Control Panel



1. Power Switch
2. Gas/Air Pressure Gauge
3. Gas/Air Pressure Control
4. Cut/Gouge Switch
5. Output Control
6. Power Light
7. Trouble Lights

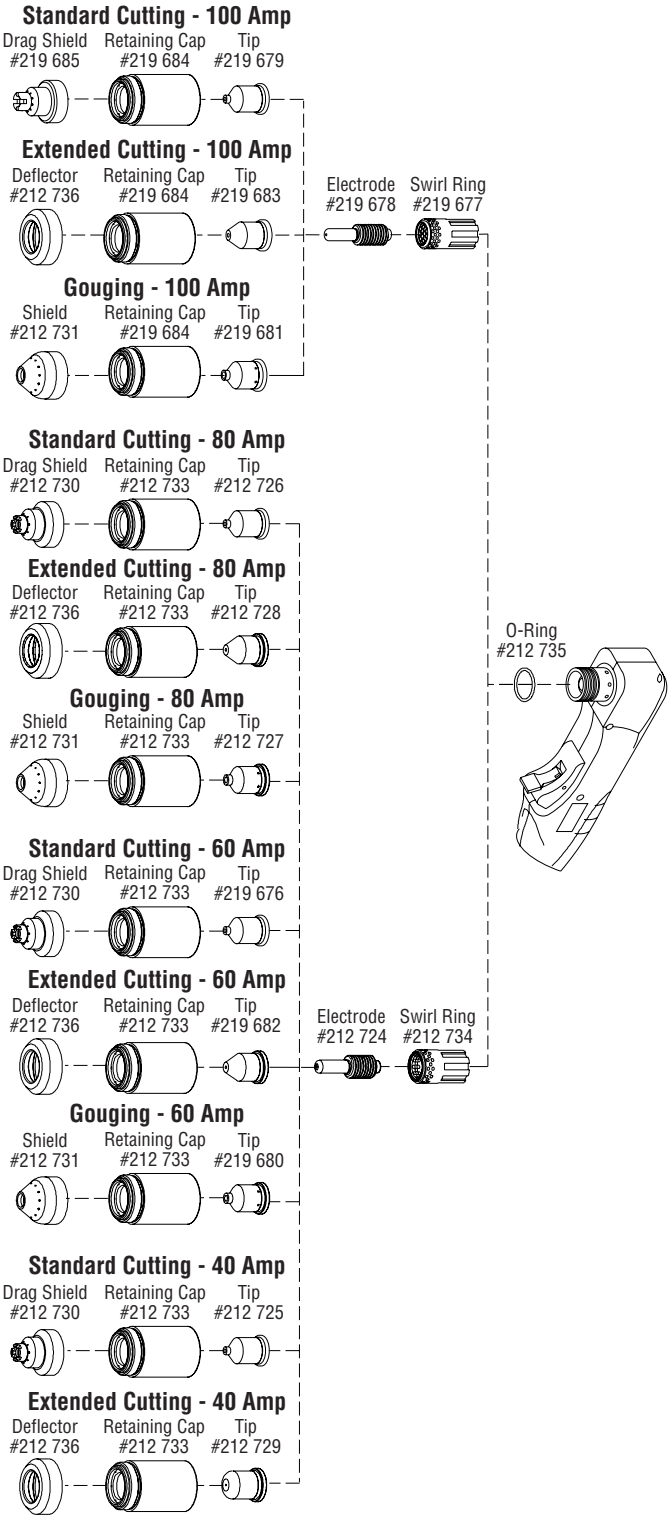
Rated Cutting Performance



Replacement Torch and Consumables

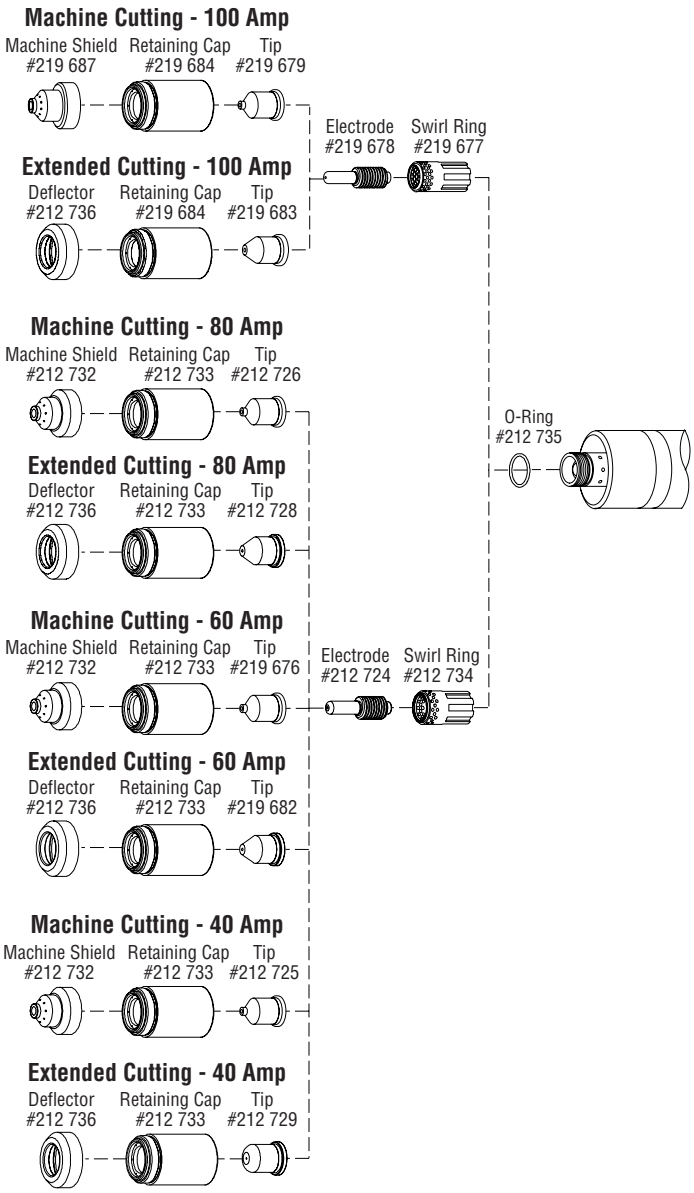
Hand-Held Cutting

ICE-100T Hand-Held Torch
#225 702 25 ft (7.6 m)
#225 704 50 ft (15.2 m)



Machine-Held Torch Cutting

ICE-100TM Machine-Held Torch
#225 706 25 ft (7.6 m)
#225 708 50 ft (15.2 m)



Genuine Miller Accessories

CNC/Robotic Remote Cable Kit
#226 057 with 25 ft (7.6 m) torch
#226 058 with 50 ft (15.2 m) torch
Consists of an ICE-100TM mechanized torch and cable assemblies for CNC/Robotic interface for remote start and okay-to-move functions as well as voltage-sensing. Also includes remote pendant control with cable. *Order from Miller Service Parts.*

Remote Pendant Control #195 513
Provides remote start and stop of the arc for the ICE-100TM machine-held torch. *Order from Miller Service Parts.*

ICE-100T Consumable Kit #222 037
Consumable kit includes 6 electrodes (100 A), 3 tips (100 A), 2 ext tips (100 A), 1 gouge tip, 1 gouge shield, 1 retaining cup, 1 drag shield and 3 o-rings. *Order from Miller Service Parts.*

Torch Cable Covers
#231 867 25 ft (7.6 m)
#231 868 50 ft (15.2 m)

Suction/Magnetic Pivot Base #195 979
Add this to your cutting guide for convenient attachment to all flat surfaces. The extended arm accommodates holes up to 30" diameter.

Plasma Circle-Cutting Guide #195 981
Cut straight lines or circles up to 12 in diameter with ease.

Motor Guard Air Filter #042 306
The filter is equipped with a 1/4 inch NPT port to match the fittings on most plasma systems; it has a rated airflow of over 45 SCFM.

Replacement Filter Element #042 312
Carton of four filters for use with motor guard air filter **#042 306**. *Order from Miller Service Parts.*

RTI Filter and Bracket #195 425
Dryer will remove water, dirt and oil as small as one micron with 99.9% efficiency. Can be mounted on plasma cutter or on wall. Install as close as possible to point of air consumption.

RTI Replacement Filter Element #212 771
Order from Miller Service Parts.

No. 30A Economy Cart w/Cord Wrap #195 093
This economical running gear provides mobility with an angle for easy front panel access and extra storage space.

No. 50HD Cart #300 026
This heavy-duty cart accommodates the Spectrum 125C, 375, 625, 2050, 1000 and 1251.

Protective Cover #195 424
Water-resistant, odor-free cover protects your machine's finish.

MIG Gloves
#227 821 Small
#227 822 Medium
#227 823 Large
#227 824 X-Large
For medium-duty MIG welding and metalworking tasks. Combination of durable top grain cowhide palm and abrasion-resistant pig split back sewn with Kevlar® thread.

Metalworker Gloves
#227 817 Small
#227 818 Medium
#227 819 Large
#227 820 X-Large
Designed for the daily demands of the metalworker and material handler. Padded, goatskin palm with textured G-Grip™ patch for excellent grip. Neoprene wrist with Velcro® closure for improved fit. NOT intended for use while welding.

Ordering Information

Power Source and Options	Stock No.	Description	Qty.	Price
Spectrum® 1251 Three-phase, 208–575 VAC, 50/60 Hz, Auto-Line™ *Note: Each Spectrum unit includes extra consumables (2 standard electrodes, 1 standard tip, 1 gouge tip, 1 gouge shield, 1 extended tip, and 1 deflector).*	**#907 305-01-1*** **#907 305-01-2*** **#907 305-01-3*** **#907 305-01-4***	With 25 ft (7.6 m) ICE-100T hand-held torch With 50 ft (15.2 m) ICE-100T hand-held torch With 25 ft (7.6 m) ICE-100TM machine-held torch With 50 ft (15.2 m) ICE-100TM machine-held torch (*Machine torch package includes CNC/Robotic remote cable kit and remote pendant*)		
Replacement Torches				
ICE-100T Hand-Held Torch	**#225 702** **#225 704**	25 ft (7.6 m). *Order from Miller Service Parts* 50 ft (15.2 m). *Order from Miller Service Parts*		
ICE-100TM Machine-Held Torch	**#225 706** **#225 708**	25 ft (7.6 m). *Order from Miller Service Parts* 50 ft (15.2 m). *Order from Miller Service Parts*		
Consumables	**See page 3**			
Accessories	**See above**			

Date: **Total Quoted Price:**

* *Certified to both the Canadian and U.S. Standards for welding and plasma cutting equipment.*

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